

ABSTRACT

5 A printer with a multi-segment printhead has multiple engine/controllers
(10) configured to be coupled with other engine/controllers to drive the printhead
(33). The controllers each have an interface (27) at which to receive compressed
page data. Image decoders (28, 88) decode compressed image planes image
decoders to perform an expansion, in pipeline fashion, for the received
10 compressed page data. A half-toner/compositor (29) composites respective strips
of the decoded image planes and sends output to a printhead interface (32). A
printhead interface (32) interfaces with the printhead. A synchronization signal
generator (89,90) may output a synchronization signal that is used to synchronize
print engine/controllers. One printhead interface (32) preferably acts as master
15 generating the synchronization signal to synchronize all the print
engine/controllers to drive the printhead at any one or more of higher speed,
higher input resolution, higher outlet resolution or wider format. The half-
toner/compositor (29) scales input image planes under control of a margin unit
(57) set the print engine/controller to establish print data for a strip only of the
20 image, the image being built from the respective strips from the multiple print
engine/controllers.

25